AMENDMENTS TO THE CLAIMS

1-34. (Canceled)

35-50. (Not entered)

51. (currently amended) A transgenic plant comprising a nucleic acid encoding a microbial β-1,4-endoglucanase (EC 3.2.1.4), wherein said nucleic acid is stably integrated into a nuclear ~~or plastid~~ genome of the plant and is under the control of a promoter active in a plant, wherein the promoter is an inducible promoter. ~~wherein the promoter determines a spatial or temporal expression pattern for the microbial β-1,4-endoglucanase~~.

52. (canceled)

53. (previously presented) The transgenic plant of claim 51, wherein the microbial β-1,4-endoglucanase is thermostable.

54. (canceled)

55. (currently amended) A transgenic plant comprising a nucleic acid encoding a microbial β-1,4-endoglucanase (EC 3.2.1.4), wherein said nucleic acid is stably integrated into a nuclear ~~or plastid~~ genome of the pant and is under the control of a promoter active in a plant, wherein the promoter is a wound inducible or a chemically-inducible promoter.

56. (currently amended) A transgenic seed comprising a nucleic acid encoding a microbial β-1,4-endoglucanase (EC 3.2.1.4), wherein said nucleic acid is stably integrated into a nuclear ~~or plastid~~ genome of the plant and is under the control of a promoter active in a plant, wherein the promoter is an inducible promoter. ~~wherein the promoter determines a spatial or temporal expression pattern for the microbial β-1,4-endoglucanase~~.

57. (currently amended) A transgenic plant comprising a nucleic acid encoding a microbial β-1,4-endoglucanase (EC 3.2.1.4) and a targeting sequence, wherein the nucleic acid is stably integrated into a nuclear ~~or plastid~~ genome of the plant and is under control of a promoter active in a plant and wherein the targeting sequence will target the microbial β-1,4-endoglucanase to an organelle or cell compartment where the microbial β-1,4-endoglucanase will not be able to degrade cellulose.

58. (previously presented) The transgenic plant of claim 57, wherein the promoter determines a spatial or temporal expression pattern for the microbial β-1,4-endoglucanase.

59. (currently amended) The transgenic plant of claim 57, wherein the promoter is an inducible promoter ~~a wound inducible or chemically inducible promoter~~.

60. (canceled)

61. (previously presented) The transgenic plant of claim 57, wherein the microbial β-1,4-endoglucanase is thermostable.

62. (canceled)

63. (currently amended) The transgenic plant of claim 57, wherein the targeting sequence targets the microbial β-1,4-endoglucanase to a compartment selected from the group consisting of vacuole, chloroplast, mitochondria ~~mictochondria~~, peroxisome, and ER~~, apoplast, and extracelluar secretion from aleurone cells~~.

64. (currently amended) A transgenic seed comprising a nucleic acid encoding a microbial β-1,4-endoglucanase (EC 3.2.1.4) and a targeting sequence, wherein the nucleic acid is stably integrated into a nuclear ~~or plastid~~ genome of the plant and is under control of a promoter active in a plant and wherein the targeting sequence will

target the microbial β-1,4-endoglucanase to an organelle or cell compartment where the microbial β-1,4-endoglucanase will not be able to degrade cellulose.

65. (currently amended) The transgenic seed of claim 64, wherein the targeting sequence targets the microbial β-1,4-endoglucanase to a compartment selected from the group consisting of vacuole, chloroplast, mitochondria ~~mietochondria~~, peroxisome, and ER~~, apoplast, and extracelluar secretion from aleurone cells~~.

66. (new) The transgenic plant of claim 51, wherein the microbial β-1,4-endoglucanase is from a cellulolytic bacterium.

67. (new) The transgenic plant of claim 51, wherein the microbial β-1,4-endoglucanase is from a filamentous fungus.

68. (new) The transgenic plant of claim 51, wherein the promoter is a wound inducible promoter.

69. (new) The transgenic plant of claim 51, wherein the promoter is a chemically-inducible promoter.

70. (new) The transgenic plant of claim 57, wherein the microbial β-1,4-endoglucanase is from a cellulolytic bacterium.

71. (new) The transgenic plant of claim 57, wherein the microbial β-1,4-endoglucanase is from a filamentous fungus.

72. (new) The transgenic plant of claim 59, wherein the promoter is a wound inducible promoter.

73. (new) The transgenic plant of claim 59, wherein the promoter is a chemically-inducible promoter.

74. (new) A transgenic plant comprising a nucleic acid encoding a microbial β-1,4-endoglucanase (EC 3.2.1.4), wherein the nucleic acid is stably integrated into a plastid genome of the plant and is under control of an inducible promoter.

75. (new) The transgenic plant of claim 74, wherein the microbial β-1,4-endoglucanase is from a cellulolytic bacterium.

76. (new) The transgenic plant of claim 74, wherein the microbial β-1,4-endoglucanase is from a filamentous fungus.

77. (new) The transgenic plant of claim 74, wherein the promoter is a chemically inducible promoter.

78. (new) The transgenic plant of claim 74, wherein the promoter is a wound inducible promoter.

79. (new) The transgenic plant of claim 74, wherein the microbial β-1,4-endoglucanase is thermostable.

80. (new) A transgenic seed comprising a nucleic acid encoding a microbial β-1,4-endoglucanase (EC 3.2.1.4), wherein the nucleic acid is stably integrated into a plastid genome of the plant and is under control of an inducible promoter.

81. (new) A transgenic plant comprising a nucleic acid encoding a microbial β-1,4-endoglucanase (EC 3.2.1.4) from a *Thermomonospora* bacterium, wherein said nucleic acid is stably integrated into a nuclear genome of the plant and is under the control of a promoter active in a plant, wherein the promoter is an inducible promoter.

82. (new) The transgenic plant of claim 81, where in the microbial β-1,4-endoglucanase is from *T. fusca*.

83. (new) A transgenic plant comprising a nucleic acid encoding a microbial β-1,4-endoglucanase (EC 3.2.1.4) from a *Thermomonospora* bacterium and a targeting sequence, wherein the nucleic acid is stably integrated into a nuclear genome of the plant and is under control of a promoter active in a plant and wherein the targeting sequence will target the microbial β-1,4-endoglucanase to an organelle or cell compartment where the microbial β-1,4-endoglucanase will not be able to degrade cellulose.

84. (new) The transgenic plant of claim 83, where in the microbial β-1,4-endoglucanase is from *T. fusca.*

85. (new) A transgenic plant comprising a nucleic acid encoding a microbial β-1,4-endoglucanase (EC 3.2.1.4) is from a *Thermomonospora* bacterium, wherein the nucleic acid is stably integrated into a plastid genome of the plant and is under control of an inducible promoter.

86. (new) The transgenic plant of claim 85, wherein the microbial β-1,4-endoglucanase is from *T. fusca.*